

**REMARKS**

Claims 1-25 are all the claims pending in the application. Applicants have amended claims 11 and 20 for clarity. Further, claims 2, 10 and 19 have been amended to correct a clerical error. The description "an alicyclic hydrocarbon group having from 1 to 4 carbon atoms" is changed to "an alicyclic hydrocarbon group". Support for the change may be found in the specification as originally filed, for example, at pages 59 to 62. On the pages 59 to 62, the alicyclic hydrocarbon group represented by R<sub>11</sub> to R<sub>25</sub> and the alicyclic hydrocarbon group formed by Z and the carbon atom is explained in detail, without reference to 1 to 4 carbons.

**I. The Obviousness-Type Double Patenting Rejection**

Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 4-6 of copending Application No. 09/577,884.

To expedite allowance of the present Application, Applicants are submitting herewith a terminal disclaimer to obviate the obviousness-type double patenting rejection over claims 4-6 of copending Application No. 09/577,884.

For the above reasons, it is requested that the obviousness-type double patenting rejection over copending Application No. 09/577,884 be reconsidered and withdrawn.

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Additionally, enclosed herewith are sworn English language translations of Applicants foreign priority documents P.Hei. 11-207958, P.Hei. 11-234239 and P.Hei. 11-234240.


## II. Conclusion

In view of the above, Applicants respectfully submit that their claimed invention is allowable and ask that the obviousness-type double patenting be reconsidered and withdrawn. Applicants respectfully submit that this case is in condition for allowance and allowance is respectfully solicited.

If any points remain at issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the local exchange number listed below.

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: August 23, 2002

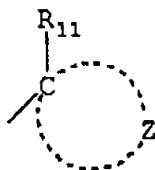
## APPENDIX

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

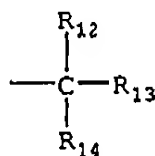
**IN THE CLAIMS:**

**The claims are amended as follows:**

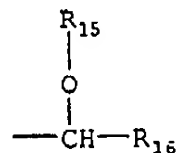
2 (Amended). The positive photoresist composition as claimed in claim 1, wherein the resin (B) further contains a repeating unit having an alkali-soluble group protected by at least one group containing an alicyclic hydrocarbon structure represented by the following formula (pI), (pII), (pIII), (pIV), (pV) or (pVI):



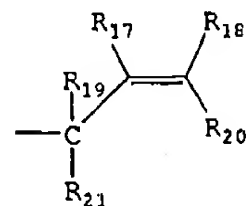
(pI)



(p11)



(pIII)



(pIV)

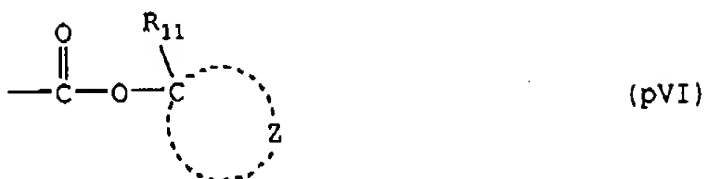
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wherein R<sub>11</sub> represents a methyl group, an ethyl group, an n-propyl group, an isopropyl group, an n-butyl group, an isobutyl group or a sec-butyl group; Z represents an atomic group necessary for forming an alicyclic hydrocarbon group together with the carbon atom; R<sub>12</sub> to R<sub>16</sub> each independently represents a linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms], provided that at least one of R<sub>12</sub> to R<sub>14</sub> or either one of R<sub>15</sub> and R<sub>16</sub> represents an alicyclic hydrocarbon group; R<sub>17</sub> to R<sub>21</sub> each independently represents hydrogen atom, a linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms], provided that at least one of R<sub>17</sub> to R<sub>21</sub> represents an alicyclic hydrocarbon group and either one of R<sub>19</sub> and R<sub>21</sub> represents a linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms]; and R<sub>22</sub> to R<sub>25</sub> each independently represents a linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms], provided that at least one of R<sub>22</sub> to R<sub>25</sub> represents an alicyclic hydrocarbon group.

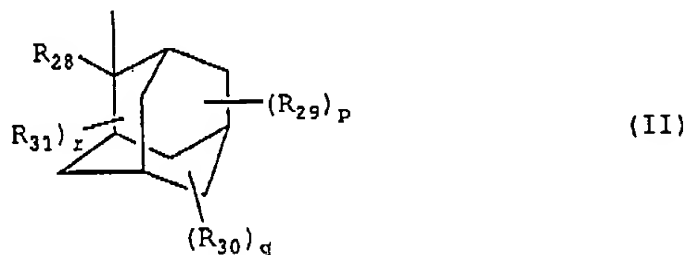
10 (Amended). The positive photoresist composition for far ultraviolet exposure as claimed in claim 9, wherein the resin (B) further contains a repeating unit having an alkali-soluble group protected by at least one group containing an alicyclic hydrocarbon structure represented by the following formula (pI), (pII), (pIII), (pIV), (pV) or (pVI):





wherein  $R_{11}$  represents a methyl group, an ethyl group, an n-propyl group, an isopropyl group, an n-butyl group, an isobutyl group or a sec-butyl group; Z represents an atomic group necessary for forming an alicyclic hydrocarbon group together with the carbon atom;  $R_{12}$  to  $R_{16}$  each independently represents a linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms], provided that at least one of  $R_{12}$  to  $R_{14}$  or either one of  $R_{15}$  and  $R_{16}$  represents an alicyclic hydrocarbon group;  $R_{17}$  to  $R_{21}$  each independently represents hydrogen atom, a linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms], provided that at least one of  $R_{17}$  to  $R_{21}$  represents an alicyclic hydrocarbon group and either one of  $R_{19}$  and  $R_{21}$  represents a linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms]; and  $R_{22}$  to  $R_{25}$  each independently represents linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms], provided that at least one of  $R_{22}$  to  $R_{25}$  represents an alicyclic hydrocarbon group.

11 (Amended). The positive photoresist composition for far ultraviolet exposure as claimed in claim 10, wherein the group containing an alicyclic hydrocarbon structure represented by the [following] formula (pI), (pII), (pIII), (pIV), (pV) or (pVI) is a group represented by the following formula (II):

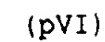
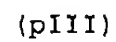


wherein  $R_{28}$  represents an alkyl group which may have a substituent,  $R_{29}$  to  $R_{31}$ , which may be the same or different, each represents a hydroxy group, a halogen atom, a carboxy group, an alkyl group which may have a substituent, a cycloalkyl group which may have a substituent, an alkenyl group which may have a substituent, an alkoxy group which may have a substituent, an alkoxycarbonyl group which may have a substituent or an acyl group which may have a substituent, and  $p$ ,  $q$  and  $r$  each independently represents 0 or an integer of 1 to 3.

19 (Amended). The positive photoresist composition for far ultraviolet exposure as claimed in claim 18, wherein the resin (B) further contains a repeating unit having an alkali-soluble group protected by at least one group containing an alicyclic hydrocarbon structure represented by the following formula (pI), (pII), (pIII), (pIV), (pV) or (pVI):

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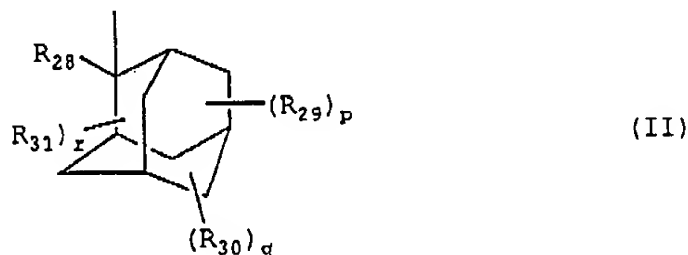




wherein R<sub>11</sub> represents a methyl group, an ethyl group, an n-propyl group, an isopropyl group, an n-butyl group, an isobutyl group or a sec-butyl group; Z represents an atomic group necessary for forming an alicyclic hydrocarbon group together with the carbon atom; R<sub>12</sub> to R<sub>16</sub> each independently represents a linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms], provided that at least one of R<sub>12</sub> to R<sub>14</sub> or either one of R<sub>15</sub> and R<sub>16</sub> represents an alicyclic hydrocarbon group; R<sub>17</sub> to R<sub>21</sub> each independently represents hydrogen atom, a linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms], provided that at least one of R<sub>17</sub> to R<sub>21</sub> represents an alicyclic hydrocarbon group and either one of R<sub>19</sub> and R<sub>21</sub> represents a linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms]; and R<sub>22</sub> to R<sub>25</sub> each independently represents a linear or branched alkyl group having from 1 to 4 carbon atoms or an alicyclic hydrocarbon group [having from 1 to 4 carbon atoms], provided that at least one of R<sub>22</sub> to R<sub>25</sub> represents an alicyclic hydrocarbon group.

20 (Amended). The positive photoresist composition for far ultraviolet exposure as claimed in claim 19, wherein the group containing an alicyclic

hydrocarbon structure represented by the [following] formula (pI), (pII), (pIII), (pIV), (pV) or (pVI) is a group represented by the following formula (II):



wherein  $R_{28}$  represents an alkyl group which may have a substituent,  $R_{29}$  to  $R_{31}$ , which may be the same or different, each represents a hydroxy group, a halogen atom, a carboxy group, an alkyl group which may have a substituent, a cycloalkyl group which may have a substituent, an alkenyl group which may have a substituent, an alkoxy group which may have a substituent, an alkoxycarbonyl group which may have a substituent or an acyl group which may have a substituent, and  $p$ ,  $q$  and  $r$  each independently represents 0 or an integer of 1 to 3.